REMARKS

Claims 3 and 5-15 are pending. All of the pending claims are rejected. The Examiner withdraws the previous objection to the claims and rejections under 35 USC 112 in response to our last Amendment filed February 26, 2008.

Rejection under 35 USC 103

A. The Examiner rejects claims 3 and 5-15 as allegedly unpatentable over Safar *et al.*, *Protein Science*, 1993, 2:2206-2216 in view of Coustou *et al.*, *PNAS* (1997), Glover *et al.*, *Cell* (1997) or Wickner, *Science* (1994). The Examiner admits that Safar *et al.* do not teach using Sup35p, Ure2p or Het-s protein. However, the Examiner relies upon each of Coustou *et al.*, *PNAS* (1997), Glover *et al.*, *Cell* (1997) or Wickner, *Science* (1994) for teaching one individually. The Examiner adds that one of ordinary skill in the art would have recognized that yeast prion analogs have the same property as mammalian prion proteins, and thus would be suitable to replace the mammalian prion proteins as an indicator. The Examiner further admits that the references, even in combination, do not teach the amount of indicator being 0.1 ng to 100 g, the Examiner says that the amount used by Safar *et al.* may be easily calculated as 140 μg. Further, the Examiner says that it is well recognized that only those gene products of yeast in amyloid or amyloid-like form are considered as prion counterparts (*See*, claim 3, amended to read "and is in amyloid form...).

Applicants respectfully traverse. The goal of Safar *et al.* was to study the thermal stability and conformational transitions of scrapie amyloid protein and its correlation with infectivity. Safar *et al.* submitted a scrapie amyloid protein to heat treatment and to chemical scrapie inactivators such as FA, SDS, additional α-helix-inducing fluorinated alcohols and TFA to measure their effect on the conformation of PrP27-30 and the ability of the protein to propagate, replicate and cause disease. The presently claimed method is a method for evaluating the efficiency of a sterilization process. Since some sterilization processes allow a significant degradation of prion proteins whereas other methods produce a weaker degradation, the method of the present claims allows the evaluation of the efficiency of different sterilization processes.

The method of the present claims measures the destruction and/or degradation of the yeast prion using, for example, ozone.

Applicants respectfully submit that the presently claimed methods are not obvious over the prior art. The instant methods may be adapted to industrial processes when there is a need to control the efficiency of the sterilization process. After ozone treatment according to the instant invention, there is no residual yeast prion protein as evidenced by Western blot analysis. *See*, specification, Table 1. Safar *et al.* do not teach ozone treatment. Ozone treatment is an extremely powerful oxidative process, able to break down chemical bonds. Applicants respectfully submit that merely knowing that heat or chemical treatment can have an effect on the degradation of a mammalian prion protein and that the level of degradation can be measured by Western blot analysis does not suggest a method of evaluating the efficiency of a sterilization process using proteins as described by Coustou *et al.*, Glover *et al.* or Wickner *et al.*

Applicants further submit that a yeast prion is not an analog of a mammalian prion as taught by Safar *et al.* Hence, it is not obvious to substitute a yeast prion for a mammalian prion. Applying the old "teaching, motivation, suggestion" test long applied to determine whether a *prima facie* case of obviousness exists, there is simply no motivation to substitute a yeast prion for a mammalian prion and no reasonable expectation of succeeding using a yeast prion. Applicants submit herewith a Declaration of Dr. Pierre Belhumeur pursuant to 37 C.F.R 1.132. The declarant states under oath that there are significant differences between yeast prion proteins and mammalian prion proteins clearly demonstrating that mammalian and yeast prions are not analogs. *See*, Belhumeur Declaration, paragraph 10.

B. The Examiner rejects claim 9 as allegedly unpatentable over Safar *et al.*, *Protein Science*, 1993, 2:2206-2216 in view of Coustou *et al.*, *PNAS* (1997), Glover *et al.*, *Cell* (1997) or Wickner, *Science* (1994) and further in view of Feldman *et al.*, "Compatibility of medical devices and material with low-temperature hydrogen perioxide gas plasma," (1997). The Examiner admits that the primary and secondary references do not teach using low temperature gas plasma or oxidizing sterilizing agents. However, allegedly Feldman *et al.* teach using a sterilization process to inactivate a prion using oxidizing agents such as hydrogen peroxide as a form of low-temperature gas plasma (*citing* Column 30, line 33 through Column 34, line 42).

Therefore, the Examiner says that it would have been obvious to substitute the sterilization technique of Feldman *et al.* for that used by the primary and secondary references, and the motivation to do so comes from the potential damage and safety concerns of the sterilization techniques of the primary and secondary references.

Applicants respectfully traverse. Applicants respectfully submit that merely knowing that heat or chemical treatment can have an effect on the degradation of a mammalian prion protein and that the level of degradation can be measured by Western blot analysis does not suggest a method of evaluating the efficiency of a sterilization process using proteins as described by Coustou *et al.*, Glover *et al.* or Wickner *et al.*, yeast prion proteins for the reasons set forth above.

C. The Examiner rejects claims 9, 10 and 13 as allegedly unpatentable over Safar *et al.*, *Protein Science*, 1993, 2:2206-2216 in view of Coustou *et al.*, *PNAS* (1997), Glover *et al.*, *Cell* (1997) or Wickner, *Science* (1994) and further in view of Dresdner *et al.*, U.S. Patent 5,357,636. The Examiner admits that the primary and secondary references do not teach ozone-based exposure or sodium hydroxide as chemical exposure. However, the Examiner says that Dresdner *et al.* teach ozone-based exposure or sodium hydroxide as an antiseptic composition and that one of ordinary skill in the art would recognize this as an equivalent sterilization technique to the sterilization techniques of the primary and secondary references. The Examiner further admits that the primary and secondary references do not teach a porous, permeable, or semi-permeable container. However, the Examiner says that Dresdner *et al.* teach a porous and liquid-permeable medical glove for sterilization. The Examiner adds that it would have been obvious to replace a glass container of the primary and secondary references with a porous medical glove, and that the motivation to make the modification comes from the fact that prions occur in various materials and various materials should be sterilized. Moreover, there is allegedly a reasonable expectation of success because various materials are indeed routinely sterilized.

Applicants respectfully traverse. Applicants respectfully submit that merely knowing that heat or chemical treatment can have an effect on the degradation of a mammalian prion protein and that the level of degradation can be measured by Western blot analysis does not suggest a method of evaluating the efficiency of a sterilization process (ozone or sodium

hydroxide as in Feldman *et al.*) using proteins as described by Coustou *et al.*, Glover *et al.* or Wickner *et al.* Applicants further submit that replacing the glass container of Safar *et al.* with the medical glove of Dresdner *et al.*, when combined with the proteins of Coustou *et al.*, Glover *et al.*, or Wickner *et al.* does not render the instant claims unpatentable since Dresdner *et al.* do not cure the deficiencies of Safar *et al.* in view of Coustou *et al.*, Glover *et al.* or Wickner *et al.*.

FEES

No fees are believed to be necessary. However, if any fees are due, authorization is hereby given to charge Deposit Account No. 11-1153 for any underpayment.

CONCLUSION

Applicants respectfully request entry of the foregoing remarks in the file of the instant Application. Early and favorable action on the claims is earnestly solicited. If any issues may be resolved by telephone, the Examiner is invited to contact the undersigned at the telephone number provided below.

Respectfully submitted,

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